REMARKS/ARGUMENTS

The above amendments and these remarks are in response to the Office action mailed on June 7, 2007. Claims 1, 5, 21, 23, 24 and 34 have been amended. Claims 1-11, 13-34 and 36 are now pending in this application. Reconsideration on the basis of the above amendments and remarks below is kindly requested.

The undersigned attorney wishes to thank the Examiner for the telephonic interview on July 17, 2007 where the teachings of Cho, U.S. Patent No. 4,534,934 were discussed.

It should be noted that the language added in the Amendment mailed on April 5, 2007 in response to the Office action mailed on January 5, 2007 are also shown in underline, as the underlining was inadvertently omitted in the Amendment mailed on April 5, 2007.

The Examiner rejected claims 1-11, 13-33 and 36 under 35 U.S.C. §103(a) as being unpatentable over Cho. Furthermore, the Examiner rejected claim 34 under 35 U.S.C. §102(b) as being anticipated by Cho.

Claim 1 requires that the ultra hard material layer has a peripheral portion infiltrated by a metallic liner and further requires "removing a majority of said peripheral portion." Claim 34 also requires that "wherein during sintering a peripheral portion of said ultra hard material is infiltrated by a material forming said liner; and removing a majority of said peripheral portion." Cho discloses an axial sweep-through process for preparing diamond wire die compacts. These compacts include a diamond material surrounded by a carbide. In the Cho process, discs including cobalt are placed to provide for an axial sweep-through of cobalt for providing the desired cobalt concentrations throughout the diamond material. Specifically, Cho solves the problem of the inefficient cobalt diffusion which is obtained by the conventional radial sweep-through technique, where the cobalt is swept radially into the diamond. The purpose of Cho is to get axial diffusion of cobalt through the entire diamond material. Thus, one skilled in the art will not remove a majority of the ultra hard material of Cho which has been infiltrated by the cobalt from the disc (i.e., the alleged liner), because doing so will require that the entire ultra hard

material be removed. Thus, Applicants submit that claims 1 and 34 cannot be anticipated nor rendered obvious by Cho.

Claim 21 requires "disposing a metallic liner within said enclosure; placing ultra hard material within said enclosure, wherein at least a portion of said metallic liner is sandwiched between said ultra hard material and said inner peripheral surface; placing a substrate material within said enclosure over the ultra hard material, wherein the substrate material is different from a material forming the liner; . . wherein the melting temperature of the liner formed eutectic is within 310° C of the substrate formed eutectic." According to the Examiner, since the product disclosed in Cho is produced by an identical or substantially identical process, a prima facie case of either anticipation or obviousness has been established. However, claim 1 has claimed a method requiring the disposing of a metallic liner and the placing of a substrate material; and further requires that the metallic liner and the substrate material are chosen such that the melting temperature of the liner formed eutectic is within 310° C of the substrate formed eutectic. In other words, the requirement of the eutectic melting temperature is used to further define the two materials, i.e., the metallic liner and the substrate material. Nowhere does Cho appear to disclose that the alleged liner and alleged substrate material eutectics with melting temperatures are within 310° C from each other. According to the Examiner's reasoning, if the prior art discloses any metallic liner and any substrate, that would be sufficient to anticipate or render claim 21 obvious, even though claim 21 specifically requires that the melting temperatures of the eutectics of the metallic liner and the substrate material within a specified, temperature range of each other. Thus, Applicants submit that the rejection to claim 21 is improper and should be withdrawn.

Claim 23 requires "sintering to convert said ultra hard material to a solid ultra hard layer, wherein during sintering the liner forms a plastically deformable region for preventing the formation of cracks on the ultra hard material adjacent said plastically deformable region during a cooling phase of said sintering; and removing said region." Again, the Examiner has taken the position that if the product produced by the prior art is produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established.

Again, claim 23 requires that the liner is selected such that during sintering, it forms a plastically deformable region for preventing the formation of cracks. Just because Cho may allegedly disclose a liner, without disclosing that the liner has the same properties or performs the same way as claimed, Cho cannot be used to anticipate or render obvious claim 23. According to the Examiner's reasoning, any liner disclosed by Cho immaterial of what it is made of, would be sufficient for rendering claim 23 obvious. Such reasoning is faulty.

The remaining claims in the application are all either directly or indirectly dependent from either claims 1, 21, 23 and 34. As such, Applicants submit that these claims are also allowable over Cho as being dependent from a claim allowable over Cho and for the additional limitations they contain therein. For example, claim 5 requires that the metallic liner defines an annular surface. In this regard, the metallic liner will provide for a radial sweep-through technique infiltration into the ultra hard material. This is contrary to the teachings of Cho, who teaches the use of discs to facilitate an axial sweep for axial infiltration through the ultra hard material so as to overcome the drawbacks radial sweeping.

The rejections and objections to all claims pending in this application are believed to have been overcome and this application is now believed to be in condition for allowance. Should the Examiner have any remaining questions or concerns about the allowability of this application, the Examiner is kindly requested to call the undersigned attorney to discuss them.

Respectfully submitted,
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